

**CLAIMS**

That which is claimed is:

- 5        1. An isolated proteinaceous molecule having canine PTH1 activity, wherein said proteinaceous molecule comprises an amino acid sequence of SEQ ID NO:2, or an amino acid sequence of SEQ ID NO:2 with one or more conservative substitutions therein.
- 10      2. An isolated proteinaceous molecule according to claim 1, wherein said amino acid sequence has zero to three conservative substitutions therein.
- 15      3. An isolated proteinaceous molecule according to claim 1, wherein said amino acid sequence comprises an amino acid sequence of SEQ ID NO:2.
- 20      4. An isolated DNA molecule encoding a proteinaceous molecule according to claim 1.
- 25      5. An isolated DNA molecule encoding a proteinaceous molecule according to claim 3.
- 30      6. A recombinant expression vector comprising a DNA molecule according to claim 4.
- 25      7. A cell transformed by an expression vector according to claim 6.
8. A cell according to claim 7, wherein said cell is that of a prokaryote.
9. A cell according to claim 7, wherein said cell is that of a eukaryote.
10. A cell according to claim 9, wherein said eukaryote is yeast.
11. A cell according to claim 9, wherein said eukaryote is a mammal.

12. A cell according to claim 11, which is a CHO cell.

13. A method of producing a proteinaceous molecule having an activity of canine PTH1, which comprises culturing a cell according to claim 7 for a time sufficient to produce said proteinaceous molecule.

14. A pharmaceutical composition comprising the proteinaceous molecule according to claim 1 and a pharmaceutically acceptable carrier therefor.

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15. A pharmaceutical composition comprising the proteinaceous molecule according to claim 3 and a pharmaceutically acceptable carrier therefor.

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16. A specific binding partner that selectively binds to the proteinaceous molecule according to claim 1.

17. A method of discovering ligands for the canine PTH1 protein, said method comprising the steps of:

20 a) combining a test substance with the proteinaceous molecule according to claim 1;

b) measuring specific binding between said test substance and said proteinaceous molecule; and

c) classifying as a ligand said test substance if it binds to said proteinaceous molecule.

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18. A method of discovering modulators of canine PTH1 protein activity, said method comprising the steps of:

a) combining a test substance with the proteinaceous molecule according to claim 1;

30 b) measuring the activity of said proteinaceous molecule in the presence and absence of said test substance and; and

c) classifying said test substance as a modulator of canine PTH1 activity if it modulates the activity of said proteinaceous molecule.